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The imperative demands for the cultivation of veterinary medicine in the United States.

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THE IMPERATIVE DEMANDS FOR THE CULTIVATION OF
VETERINARY MEDICINE IN THE UNITED STATES.

INTRODUCTORY ADDRESS.

NEW YORK COLLEGE
OF
VETERINARY SURGEONS.

Session 1867-68.

BY
PROF. FANEUIL D. WEISSE, M. D.

NEW YORK:
STEPHEN ANGELL, PRINTER, 50 E. 26TH ST.

1867.

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WASHING

TO CONGRESS, THE SECRETARY OF WAR, AND
THE LEGISLATURE OF THE STATE OF NEW YORK, this
ADDRESS is respectfully dedicated by the TRUSTEES
AND FACULTY of the NEW YORK COLLEGE OF VET-
ERINARY SURGEONS:—As ours is the only civilized
nation which has neglected this important element of
Political Economy, we hope that this Address may be
a means of calling attention to a subject of vital im-
portance to our Agricultural Interests, the Army and
the general prosperity of our Country and State.

—
Gentlemen, allow me, in the name of
the Trustees and Faculty of the New York College of
Veterinary Surgeons, to thank you collectively and indi-
vidually for the encouragement of this occasion. Your
presence here this evening is of no ordinary import. It is a
renewed proof that you are progressive men, endowed
with that intellectual perception which appreciates the re-
quirements of the age.

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INTRODUCTORY ADDRESS.

LADIES AND GENTLEMEN:—In the judgment of my colleagues, I have been chosen to deliver to you the Introductory Lecture to the Session of 1867 and '68, of the New York College of Veterinary Surgeons. Since I accepted this flattering task, I have realized that upon me devolves the duty of presenting

The Imperative Demands for the Cultivation of Veterinary Medicine in the United States.

The national importance and great humanity of these claims are based upon our political economy, civilization and Christianity.

As I look around me and upon this audience, I take no little pride in being the appointee to introduce this subject, vital as it is to our future prosperity as a nation and involving as it does the essentials to the subsistence and comfort of every American citizen. I recognize the faces of men who represent the progress and energy of our Western Metropolis. Gentlemen, allow me, in the name of the Trustees and Faculty of the New York College of Veterinary Surgeons, to thank you collectively and individually for the encouragement of this occasion. Your presence here this evening is of no ordinary import. It is a renewed proof that you are progressive men, endowed with that intellectual perception which appreciates the requirements of the age.

The cause of the humane virtues is silently but eloquently advocated by the presence of the ladies, without whose benignant smiles and artless encouragement, all man's pursuits and undertakings would be robbed of their incentives and rewards. I feel confident that my humble appeal, in behalf of our neglected and helpless domestic animals, will be warmly seconded, by that womanly sympathy, which the ladies of New York are ever ready to give.

As there is a general lack of information upon what Veterinary medicine is, its definition will not be out of place. It is a *specialty* of general medicine, having for its province, the application of the healing art to the care of, and the injuries and diseases incident to, animals in general, but more particularly the *domestic* animals. It requires for its scientific study and practice the same order of intellect and talents as human medicine. Its curriculum is the same, *viz.*; Anatomy, Physiology, Chemistry, Pathology and Therapeutics. Their range is even greater in Veterinary than human medicine, for while the former specialty includes many species, the latter is limited to but one. From the unity of animal forms their comparative study becomes essential to a comprehensive knowledge of any one, and thus does Veterinary become the necessary complement of human medicine and vice versa. Comparative Anatomy reveals that the tissues of animals, as compared with those of man, present only such differences of arrangement in, and ultimate structure of, the forms which they assume, as the diversified physical surroundings or habits of life of individual species require. Comparative Physiology teaches us, that the general functions of man and animals are the same, being modified only by the special varieties of organization presented by different animals. Animal Chemistry is the same for all species. Veterinary Pathology is but the transfer of the general principles which govern disease. The scientific and successful practice of Veterinary medicine calls for the keenest observation and shrewdest judg-

ment, for while the physician deals with reasoning and speaking creatures, the veterinarian has mute patients. Veterinary Therapeutics are one with human, the same drugs are used—the dose only being varied—and under given conditions the same are called for; their modus operandi is the same—only varying by specialism of function of organs—and their abuse is attended by the same dangers to life.

Every medical man would be the better physician were he to study the departments of medicine comparatively. Such a method develops truly scientific men, and produces practitioners, who have enlarged capacities for appreciation and extended latitude for reasoning. As Maclise says in the preface to his work on *Surgical Anatomy*:

“While restricted to the study of the isolated human species, the cramped judgment wastes in such narrow confine; whereas, in the expansive gaze over all allying and allied species, the intellect bodies forth to its vision the full appointed form of natural majesty, and after having experienced the manifold analogies and differentials of the many, is thereby enabled when it returns to the study of the one, to view this *one* of human type, under manifold points of interest, to the appreciation of which the understanding never wakens otherwise.” The medical history of the present century illustrates the truth of this quotation, for the vast strides of human medicine are to be ascribed to the fact, that men like Cuvier, Blumenbach, Owen, and Leydig; Magendie, Muller, Carpenter, Bernard and a host of others, *have taken* “an expansive gaze over all allying and allied species” and from a Comparative study of them have sprung the established truths of medical science. To Comparative Anatomy we owe our present comprehensive knowledge of the human type; to Comparative Physiology all we have of accepted truth in human Physiology. From pathological observations upon animals have been deduced the fundamental laws of pathology.

ADDRESS.

The modus operandi of nearly every drug in our pharmacopœia has been tested upon animals. Because of the *measures* which medical men have taken to accomplish these ends, they have been and are thought cold and heartless, but to quote the words of Dr. John Brown, in his touching story of "Rab and his friends," when speaking of the apparent heartlessness of medical students, and it applies to the profession generally:

"Don't think them heartless; they are neither better nor worse than you or I;—in them pity as an *emotion*, ending in itself or at best in tears or a long drawn breath lessens, while pity as a *motive* is quickened, and gains power and purpose."

In Europe the cultivation of veterinary medicine has during the past hundred years been fostered by governments, and their alumni command the respect of scientific men and the confidence of the people and state. Since 1762 when the first Veterinary College was established at Lyons, in France, every European government has founded one or more; many of these Institutions having at present average classes of from two to five hundred students. The literature of this specialty, in original scientific research, acute reasoning, and logical deductions, rivals that of her sister branch, while its periodicals would adorn any profession. The names of Lafosse, Huzard, Renault, Bouley and Goudron, of Percival, Youatt, Blaine, Morton and Gamgee, of Gerlach and Gurlt, together with a long list of others are and will ever be indelibly recorded on the roll of the past hundred years, as contributors to medical science and promoters of civilization.

How at variance these facts are with the popular prejudice with which this branch of medicine is looked upon in the United States! How often do we hear the appellation of "horse doctor" used as a mark of contempt and a stigma of ignorance and incapacity! The only construction to be put on such calumny, as coming from otherwise educated

people, is the general ignorance of what veterinary medicine is. They say in justification of themselves that, the mass of so called veterinarians are deficient in the essentials of their profession. It must be said, however, that the live stock keepers, blacksmiths, jockeys and hostlers, who have heretofore zealously fitted themselves to relieve the sufferings of animals, deserve our highest praise for what they *have* accomplished in the face of the greatest disadvantages. They have been obliged to educate themselves, by schooling their minds to observation, consulting books and the experience of their seniors, and cautiously acquired a practical knowledge only. They are not to blame for being deficient in that which their country has hitherto not afforded them, viz.: *a scientific collegiate education in their profession.* Many of them are earnest men, eager to avail themselves of any means of improving. The short experience of the College has proven this; for veterinarians, old in *practice*, have come forward to obtain that scientific knowledge, which hitherto, was not afforded them, and for which they had so long wished. With collegiate advantages open to them, American veterinarians will soon hurl back the opprobrium cast upon them, and prove to the country that the fault was not theirs, that they did not possess an education equal to men devoted to the practice of human medicine.

The United States, foremost in many of the branches of science and art, are in Veterinary Medicine a century behind Europe. At present, the New York College of Veterinary Surgeons is the only one in the country. To Professor John Busteed is due the honor of its establishment; by his indomitable energy and perseverance for the past twenty-five years, it has been placed upon its at present stable foundation. It can no longer be said that we possess no Institution devoted to this specialty; the community will henceforth demand the collegiate diploma, in testimony of capacity; and veterinarians have no further excuse of want of facilities for acquiring a scientific education in their profes-

sion. The time will come, when there will be Veterinary Colleges in every section of our land ; the sooner the better for the interests of the country.

In order better to impress the imperative necessity for a Veterinary Profession in the United States, allow me to digress somewhat, and briefly review our past and present political economy, in order to show the part our live stock have had and do have therein.

What we are, as a nation, has sprung from our unparalleled agricultural resources, whose development is due to our live stock.

What we are to be, will depend upon the preservation and multiplication of these developing agencies.

Our unprecedented rapid progress as a country and a nation is not primarily due to any independent agency of man, for at best, *man is but the toy of physical laws*. According to Buckle, the physical agents which determine the wealth, population, civilization and national character of a people are Soil, Climate, Food and the General aspect of Nature. He says of wealth: "Looking at the history of wealth in its earliest stage, it will be found to depend entirely on soil and climate ; the soil regulating the returns made to any given amount of labor ; the climate regulating the energy and constancy of the labor itself." We, above all other nations, can appreciate this, for with us the extent and richness of soil has been and will ever be the primary source of our wealth. As to climate, our possessions combine all influences; from the central, promoting as they do "the steady and unflinching industry" of the Eastern, Middle, Western, Pacific and Border States in the temperate zone, to the extreme, inducing the enervation and periodical inactivity of the Gulf States and Walrussia, in the torrid and frigid.

Population is determined by the supply of food, and that depends on the above conditions. The same author says: "Population itself, though affected by many other circumstances, does undoubtedly fluctuate with the supply of food,

advancing when the supply is plentiful, halting or receding when the supply is scanty." Aside from the inducements offered to immigration, by a large supply of food in a country, marriages are influenced by it. This startling statement is made by the above author. "In England, the experience of a century has proved that the marriages annually contracted, have no connection with personal feelings—that this immense social and religious institution is not only swayed, but completely controlled by the price of food and the rate of wages."

Our unbounded wealth drawn from the soil has enabled us to take immense strides in civilization, because it has afforded us leisure to acquire knowledge. To quote again: "As long as every man is engaged in collecting the materials necessary for his own subsistence, there will be neither time nor taste for higher pursuits." With us civilization has had opportunities to develop never before offered to a people; the span of a life has witnessed our rapid progress, until at present we are as a whole educated and refined. It is a notable feature of the bent of our intellectual culture, as influenced by the physical peculiarities of our territory, that our greatest triumphs have been in overcoming physical obstacles, by inventions that economize labor, save time, and annihilate space.

Our national character of prodigality, liberality, with largeness of thought and heart spring from our resources and from the general aspect of nature. Our prodigality in incurring our existing national debt, grew out of the realization of the inexhaustible fund upon which we as a nation draw. Our liberality in this world's goods, or the feeling, that "Uncle Sam is rich enough to give us all a farm," arises from the fact, that he really is; the country might support the millions of all Europe and have room for more. We have largeness of thought, because we have become accustomed to view the grandeur of our natural scenery, as it crowds our vast territory of thousands and thousands

of miles; to estimate our wealth in live stock by thousands of millions, and to regard our agricultural and mineral wealth as without limit. Poverty and oppression always meets a throb of sympathy from the large American heart, because, as a nation and as individuals, we know that, from our superfluity, we can well afford to aid and relieve.

While we bask in the sunshine of unexampled prosperity, *let us not forget the creatures without whose physical labor we would never have been able to develop our territory, and obtain from the soil its products.* Indeed without the labor of the domestic animals the world would still be uncivilized, and all countries be in a low state of barbarism. For says the English veterinarian, Professor Spooner "It is one of the peculiarities of the savage that he keeps no domestic animals; he hunts, shoots and kills, but he does not tame." Hence the Almighty's beneficence and foresight in giving to man,

"Dominion over the fish of the sea, and over the fowl of the air and over the cattle."

Turning from the past influence of our live stock in developing our nationality, let us glance at the present. Figures are the most convincing of arguments; we will therefore let them speak for themselves, and furnish food for thought and stimulus for action. In 1860 the domestic animals in the United States were:

9,000,000 horses and mules.
29,000,000 million neat cattle.
24,000,000 million sheep.
37,000,000 million swine.

Since 1850 they had increased as follows:

Horses and mules had doubled in number.
Neat cattle had increased by one half.
Sheep by one tenth.
Swine by one fifth.

Their aggregate value was \$1,000,000,000, having exactly doubled in the ten years from 1850. *One tenth* of the whole valuation was owned in New York State alone.

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Their approximative annual revenue in 1860 was :

Labor, exclusive of cost of feeding, &c., calculating 12,000,000 working horses, mules and yokes of oxen, and the labor of each, at fifty cents a day for three hundred working days only, would yield \$1,800,000,000 per annum.

Animals slaughtered for food, worth \$250,000,000.

Butter, 460,000,000 lbs. worth \$90,000,000.

Cheese, 100,000,000 lbs., worth \$10,000,000.

Wool, 60,000,000 lbs., worth \$24,000,000.

I regret that I could not obtain the valuation of fowl, which must have been proportionately large.

The above gives a total revenue of over \$2,000,000,000 almost as much as our existing national debt. Add to this the value of the animals, and we have in 1860 the enormous wealth of over \$3,000,000,000.

As an illustration of the increase from 1850 to '60, the yield of wool in the Pacific States is most striking; in 1850 it was but 77,330 lbs. while in 1860 it was nearly 4,000,000 lbs. This is one of many items that shows the increasing importance of our live stock.

In addition to this aggregate wealth we must bear in mind that our breeds of animals are constantly being improved; to-day we have our Dexter and Kentucky, our Hambletonians, our Alderneys, Devonshires and Durhams, our Southdowns and Merinos, our many breeds of fowls; and last but not least, the subject of fish culture, so successful in Europe, is attracting much attention. Such wealth constitutes the resources of nations, and are sinews of strength and sources of just pride.

It is for these reasons of political economy, if for none other, that in Europe, Veterinary medicine has claimed and commanded the highest order of talent and energy; not a few master minds of medical science have sprung from its ranks. I must here record the names of the late Nestors of surgery and medicine in France, Velpeau and Troussseau—I am told both were Veterinarians originally. They rank

among the leaders of the nineteenth century, who will ever live in the memories of men, "Les vérités qu' on leur laisse sont éternelles." European governments have realized that a veterinary profession is an indispensable element in the political economy of a nation, because it insures a proper attention to, and care of, those original sources, determining causes and ultimate support of civilization—indeed I may say of human life. In civil life, and in the army, veterinarians take rank with practitioners of human medicine. In the United States' army there are no veterinarians, and during the late war, the country paid dearly for the want of them. Rulers and statesmen of Europe realize the controlling influence of the domestic animals in political economy; hence their encouragement of the turf and hunting field as national sports, and their patronage of agricultural fairs to stimulate those who devote themselves to the avocations which lie at the foundation of national prosperity.

It behooves us to look to these our most vital interests, and take timely warning from the experience of Europe, where, during the past nine hundred years, the Rinderpest alone has swept away *two hundred million head of cattle*.

It is in the prevention and arrest of this plague of cattle, that Veterinary medicine has made its greatest triumphs. However, there are not wanting those, who argue the inefficiency of Veterinarians, because they slaughter the animals to arrest the spread of the disease. They forget that in Veterinary Medicine the question of economy of lives by decisive measures is sometimes demanded. Experience has proven the futility of attempts at treatment in this disease. The sacrifice of one is found to save the many, and as man's food and raiment is involved, there is no time for experimenting. It is a notable fact in the history of Rinderpest, that of late years wherever Veterinarians have had unlimited power to act in its prevention and treatment, those localities have been marked by total exemption or

prompt suppression. Furthermore, it can be proven that if the opinions and advice of the leading Veterinarians of England had been listened to and acted upon by the English government, that country might have been spared its recent fearful decimation.

Our knowledge of the etiology and natural history of Epidemics, both of man and animals, has been and is daily being advanced, and the more we learn from observation and investigation, the more do all intelligent physicians and veterinarians realize that they are preventible; and the force of the old maxim that "an ounce of prevention is worth a pound of cure," is fully impressed. The acme to be attained is efficient *prophylaxis* rather than treatment. Quarantines, cordons, disinfectants, cleanliness, ventilation and slaughtering are found to be the only efficient barriers to their march.

Not alone the epidemic of Rinderpest is to be dreaded, but fluke—a parasitic disease—and small pox of sheep, pleuro-pneumonia of cattle, abortion of cows, cholera of swine, cerebro-spinal meningitis (or the spotted fever of man,) of horses, are at our very doors, yes, in our very midst. It is not two months since cerebro-spinal meningitis of horses swept several farms on Long Island, before it was checked by *scientific veterinarians*. Yet in the whirl of our at present 2.17 $\frac{1}{2}$ rate of American life, we fail to pause and see the risks we are incurring by not fostering Veterinary Colleges, and thus take efficient measures to prevent and suppress such inroads upon our national wealth. At present we are at any time liable to have one of these plagues sweep over our land, and then, when every herd and flock bear the sad traces of disease, the government and people will realize their negligence in not having encouraged the growth of a scientific American Veterinary profession. It is a trite saying among diplomatists and statesmen, that "to insure peace you must be prepared for war." Let us take this home to ourselves and apply it in this instance. To insure immunity from the scourge of disease and before it steal upon us while

unprepared, let the imperative demands for the cultivation of Veterinary medicine in the United States be appreciated by Congress, and by Legislatures, by every Agricultural Society and Jockey club in the land, by every influential paper, by farmers, merchants and professional men. Let Americans awaken to the fact, that our live stock are our national life and strength, and that so long as we remain inactive, they are being jeopardized, and we are liable to experience the remorse of having "left undone those things which we ought to have done."

Aside from the claims which the domestic animals have upon our gratitude, and their importance in our political economy, they enlist the noblest and purest feelings of man's nature; pity for suffering and humanity to minister to its alleviation. To apply the words put in the mouth of Shylock by Shakespeare, "Have they not eyes? Have they not organs, dimensions, senses, affections, passions? Fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, cooled and warmed by the same winter and summer as human beings? If you prick them do they not bleed? If you poison them do they not die?" Animals are, like ourselves, susceptible to physical influences; have as keen sensibility to pain; are subject to the same diseases, which are amenable to the same treatment; they are also capable of as strong attachments—"faithful as a dog" is a world-wide maxim. Our duties to them become the greater, when we remember that their domestication by us, to supply our physiological necessities and minister to our comfort, entails upon them privations and diseases from which in the wild state they are exempt.

A step in the right direction has been taken in the establishment of the "Society for the Prevention of Cruelty to Animals." Its Samaritan-like office meets a throb of encouragement from every Christian heart; and those engaged therein will ever be remembered as zealous champions of the humane virtues. Above all others is it their first duty

to be the foremost to further, by word and acts, any and all efforts for the establishment of Veterinary schools, that there may be those among us who can intelligently minister to the hygiene of the well and the sufferings of the sick and maimed animals; from educated Veterinarians alone, will they receive the care to which they are entitled, and be spared the barbarities which are being daily practiced upon them.

COLLEAGUES OF THE FACULTY:—The entrance upon the responsibilities of a Session is the most trying period we have; new associations are to be cultivated, and the interest of diverse minds to be enlisted; our thoughts and plans are to be developed and to culminate in earnest efforts to impart knowledge to those who place themselves under tuition. Again we are to undergo the ordeal of criticism; therefore, in justice to ourselves and the Institution of which we are the exponents, every intellectual chord should be attuned, that we may add to the prestige of our College and enlarge the circle of its usefulness. We should keep in view the fact that in the United States Veterinary medicine is yet in its infancy, that the same obstacles and trials, we now meet with, have been met and overcome, by the early advocates of this specialty of medicine in other countries. Let us follow the example of our respected President, who in the face of the prejudices of the community and in spite of disappointments innumerable, has, from motives of conscientious duty, tenaciously held to and zealously advocated the national importance of a due cultivation of Veterinary medicine. The time will yet come when the United States will honor the name of Dr. John Busteed as those of Bourgelat and St. Bel are honored in France and England. Let us gather renewed enthusiasm from the increased attention drawn to our Institution during the year, and from the encouragment of the present

ADDRESS.

ir. Let our faithfulness and energy in the discharge
our duties prove the sincerity of our convictions.

GENTLEMEN OF THE CLASS :—You have no doubt been
g and earnest in your choice of this as your profession ;
i have weighed all the obstacles, which are to be met with
the unjust and unfounded prejudices of the community ;
, in the face of these, you have advanced to the threshold of
ground floor of your profession, with that steadfast reso-
ion, which springs from the realization of being engaged
a good and noble cause. May I hope that what I have
d this evening has served to strengthen your resolution,
I has roused you, one and all, to an appreciation of the full
asure of your responsibilities. Henceforth you are to
ir in mind, that the future of your Alma Mater is in your
nds ; for with whatever lustre she may shine among the
stitutions of learning, it will be alone reflected from your
idious devotion to the development of your talents, and
air subsequent application to the advancement of national
d private interests. Remember, also, that you are to be the
oneers of an American scientific Veterinary profession ;
erefore, let your own and your national pride stimulate you
herculean efforts ; for upon the character and attainments
individual members depends the *status of a Profession*.
t your zeal, industry, perseverance and demeanor be that
exemplars, so that others may emulate your course, swell
e ranks of the profession and thus blot out the existing
gma upon our civilization and Christianity. Be assured
u could not devote your talents to any profession in which
u would be more useful to the best interests of your coun-
; none in which you can more minister to the prosperity
d comfort of your fellow men ; none which, when honor-
ly practiced, will bring you more reward ; above all, none
ich will more develop your characters as humane and
ristian gentlemen.

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